

**POLYMERIC MATERIAL WITH VOIDS THAT COMPRESS TO ALLOW THE
POLYMERIC MATERIAL TO ABSORB APPLIED FORCE AND DECREASE
REACTION FORCE TO ONE OR MORE SENSOR FIBERS**

ABSTRACT

5 A polymeric material of an apparatus in one example abuts one or more sensor fibers.
The polymeric material comprises a plurality of voids. Upon an introduction of an applied
force to a portion of the polymeric material, one or more of the plurality of voids compress to
allow the portion of the polymeric material to absorb a portion of the applied force and
promote a decrease of a reaction force from the portion of the polymeric material to one or
10 more of the one or more sensor fibers.